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SOIL CONSERVATION AS RELATED TO INCREASED YIELDS AND PRODUCTION

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For at least one hundred years the ills of southern agriculture have engaged the attention of the Nation. The plight of the cotton farmer has been deplored, and many attempts have been made to improve his condition. Regardless of all the efforts which have been made by himself and in his behalf, his economic position has, during the greater part of the period, been unsatisfactory. Usually he has not received just recompense for his labors. May not this be due to the fact that he has been only a cotton farmer, producing that crop almost to the exclusion of all others, and at the expense of the fertility of his land.

We in the South expect to continue to grow cotton, to produce this crop in competition with other parts of the world. We recognize, however, that in order to do this we must do a better job than ever before. We must produce more efficiently, plant only the most suitable acres and protect them from erosion, use only varieties of highest quality, fertilize more intelligently, use more machine and less hand labor, consider cotton as one crop in our agriculture rather than as a single objective.

An important phase of the post-war cotton problem will be the production of other income-producing crops to supplement income from cotton. New sources of income must come through changes in the use of land. Since soil conservation is based on the principle of using all land on each farm according to its capabilities and treating it according to its needs, new sources of income may be expected on farms where soil conservation programs are established.

That this can be done without sacrifice of production has been admirably proven by countless farmers throughout the South. Five thousand two hundred and sixty-one (5,261) farmers operating 1,742,323 acres of land in 13 Southern states report significant results. These farmers are from the group of 162,550 cooperators with soil conservation districts utilizing the technical assistance of the Soil Conservation Service and other aids. Their changes in land use and production are based on averages of 2 to 4 years prior to and a similar period following the establishment of conservation farming, to the extent of 70 to 100 percent completion.

1. Land Use Changes

Cropland changed from 669,543 to 641,992 acres - Average decrease 4.1%
(Decrease by states from .1% Arkansas to 13.7% Florida)
Grazing land changed from 811,468 to 910,303 acres - Average increase 12.1%
(Increase ranging from approximately 40 percent in the Southeast to 4% in Texas)
Idle land changed from 61,697 to 5,356 acres - Average decrease 91.3%
(Decrease by states from 54.9% Kentucky to 99.8% Florida)

2. Some Specific Crop Acreage Changes and Significant Results

Cotton acreage reduced, average, 19.6%. (Reduced by states from 6.5% Mississippi to 38.1% Florida). Production per acre increased, average, 32.8% - (Increase by states from 25% Texas to 102.2% Virginia) and total number of bales produced on these farms increased average 6.7% - (Change by states of from decrease of 2.1% Alabama to increase 43% Louisiana).

Corn acreage reduced, average, 15.1% - (From a decrease of 30.5% Alabama to an increase of 22.7% Florida). Production per acre increased 39.2% - (From 27% Texas to 62.6% Virginia) and total number of bushels produced on these farms increased 18% - (From 1.9% Alabama to 73.5% Florida).

Wheat acreage reduced 12.5%, production per acre increased 46.9%, and total number of bushels produced increased 27.7%.

Acres in legume hay increased 60.7% - (from 4.6% Kentucky to 145.2% Florida), and total production increased 84.4% - (from 12.4% Virginia to 180.1% Alabama). Acres in non-legume hay increased 12%, and total production increased 42% with Louisiana and Alabama leading the increase.

The following changes in livestock population occurred on these farms:

Dairy cattle increased	40.4%	- (from 15.3% Tennessee to 84.6% No. Carolina)
Beef cattle increased	117.4%	- (from 14% Texas to 192.4% Georgia)
Brood sows increased	87.2%	- (from 6% Louisiana to 154.8% No. Carolina)
Ewes increased	66.0%	- (from 16% Texas to 866.3% Alabama)
Chickens increased	76.6%	- (from 36% Louisiana to 201.9% Florida)
Turkeys increased	32.4%	- (from 8% Louisiana to 1108% Tennessee)

Conservation farming means better, wiser land use. It means increased sustained production. It means using all the acres on the farm, thus providing land for crops substituting for cotton. It means the basis for a permanent agriculture on land kept permanently productive. Conservation farming won't correct all the perplexing, economic ills of the cotton industry, but without it, the ills, particularly of the producer, and finally of the industry, must increase. It's fundamental, therefore, to any future progress.

The future cotton industry cannot be safely planned without consideration of proper land use. Using the land according to its capability—selective service for each acre—and treating it according to needs is not the only fundamental, but without it cotton production, and as for that, the entire agriculture of the future, will continue in jeopardy.

Fundamentally, therefore, any successful program for agriculture must be based on treating the land according to its needs. This calls for land classification, farm by farm and acre by acre, to the end that each acre has the opportunity to render its maximum service.

We are committed to the policy of Selective Service, not only of our manpower, but of our factories in meeting war production goals. Selective service of acres in meeting agricultural production requirements for the post-war as well as the war period means meeting these requirements on a basis of sustained yield, and is certainly of as much importance as selective service in any undertaking. Carefully selecting the best use to which farms, fields, and acres may serve based on physical ability of land to produce continuously, adjusted to economic requirements, and treating these farms, fields, and acres in accordance with their needs and adaptability means guaranteeing a permanent agriculture. Actually locating these acres by their physical characteristics, determining the use in which these varied lands can make their best contribution, and specifying the treatment that they must receive is a big order, but we know of no prospect of a permanent agriculture without it.

We are in an all-out fight, which does not end with military victory. We must win that victory, of course. But it's more than our Army against our enemy's, it's more than our Navy against theirs—it's that and our farms against theirs also, and against our unknown future, not for the duration only, but for the long pull for sustained production. That's why we insist on "Selective Service for each Acre." We can't have poor, mis-used, ill-treated, washed-away, unproductive land represent us now or in the peace to follow.

The meaning of "Selective Service for each Acre" is illustrated by the photograph on the following page.

Every acre of agricultural land can be made to produce the things needed now and later, but we do not expect to produce planes in a shell factory, nor tanks in a shipyard. Neither can we expect sustained economic production of cotton, corn, peanuts or other row crops on steep or eroded land best suited to trees or grass, because row crops cause severe soil losses, which quickly make the land unfit for any productive use, perhaps for many years to come. Look again at the green area--No. 1 land--in the photograph. Green is the "go" signal, and means that this land can be used extensively for row crops without danger.

Yellow means caution, and this land, No. II, may be used but needs protection--winter and summer covers, contouring, rotations, with lime and fertilizer as needed. Without such protection it may be expected to yield a bale of cotton for twelve tons of soil. If the land is protected, the bale of cotton may cost only three tons of soil. Without protection, the land may last 35 years under continuous use, but with protection the farmer can reasonably expect it to last upwards of 100 years, depending on the degree of protection.

The larger part of this farm, as of most cotton farms, is No. III land. In the photograph, it is red, the danger signal. This land can be used, but it will be destroyed quickly unless the proper conservation practices are applied. Such land generally is steep, or poor, or badly gullied--or all three. The treatment required necessitates a careful analysis and the application of proper intensive treatments before the land can be used safely for row crops. Land of this sort will produce cotton, but the cotton will cost around seventy-five tons of soil per bale without protection, and we cannot expect sustained yield. With protection, the cotton will cost around twelve tons of soil per bale, which represents a saving we can't afford to miss.

Other lands shown in the photograph are not generally suitable for row crops. If the land's capability is determined, and proper conservation practices understood and applied, every acre may be kept in sustained production.

We cannot maintain--let alone increase--agricultural production, economically or otherwise, on eroded, wasted, depleted soils. Our agricultural production experience of 25 years ago--during and after the first World War--should serve us well now. In that emergency we brought a vast new acreage of land under the plow which actually increased production about 5 percent, but which, furthermore, created another emergency--the dust bowl in the West and increased gullying in the Southeast. There must be no repetition of those errors. They are unnecessary. Today, with less labor, less fertilizer, less farm machinery, and less new land, agricultural production is being increased. Favorable seasons have helped and the determination, dependability, and ability of farmers has been vital, but this new "farm tool"--using the land according to its capabilities and treating it according to its needs--including application of needed soil and water conservation practices, accounts for no small part of the increased production, and promises even greater and more permanent agricultural gains.



LAND USE CAPABILITY CLASSES			
SUITABLE FOR CULTIVATION		NO CULTIVATION—PASTURE, HAY, WOODLAND AND WILDLIFE	
I	REQUIRES GOOD SOIL MANAGEMENT PRACTICES ONLY	V	NO RESTRICTIONS IN USE
II	MODERATE CONSERVATION PRACTICES NECESSARY	VI	MODERATE RESTRICTIONS IN USE
III	INTENSIVE CONSERVATION PRACTICES NECESSARY	VII	SEVERE RESTRICTIONS IN USE
IV	PERENNIAL VEGETATION—INFREQUENT CULTIVATION	VIII	BEST SUITED FOR WILDLIFE AND RECREATION

